

A STUDY OF THE LIQUID CRYSTAL DISPLAY (LCD)
ELECTRONIC DIGITAL WATCH INDUSTRY IN HONG
KONG FROM 1980 TO 1981, WITH SPECIAL
REFERENCE TO ITS EXPORT MARKETING

by

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ABSTRACT

The electronic digital watch industry which has long been established in Hong Kong, has expanded from an initial set up of three factories in 1973 to 657 factories in 1981. As a result of technological advancement, light emitting diodes (LED) watches are gradually being replaced by the liquid crystal display (LCD) watches. In fact, there has been a decline in the production of LED watches in recent years. In view of the gradual decline and loss in popularity of LED watches, this research study will be confined to the LCD electronic digital watch industry.

The role of LCD watches in the world market is of paramount importance. According to a survey by the United Nations, Hong Kong ranked third in the export of watches and clocks in 1979, being preceded by Switzerland and Japan. In 1979, the export of LCD watches accounted for 48.7% of the total export of watches and clocks of Hong Kong. In light of the excellent performance and potential of the LCD watch industry, a research into the development, problems, and future growth of the industry is justified.

The writer has conducted in-depth interviews with local manufacturers before making analysis of the information gathered from the analysis. It has

been found that the major problems facing the large manufacturing firms are in the areas of marketing and engineering. Hence, the setting up of an effective marketing program, the improvement of the quality of the sales force and concentration on new product design are recommended. On the other hand, the medium-sized manufacturing firms are confronted with problems in planning and finance. The ways to improve on the situation are the setting up of effective plans and the absorption of specialized products through sub-contracted production arrangement.

In order that optimum effectiveness is achieved, local manufacturers are strongly advised to review and analyse the strengths and weaknesses of their firms before implementing the recommendations.

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PREFACE

As a new member of the Hong Kong watches and clocks family, the liquid crystal display (LCD) electronic digital watch industry has been growing at an increasing rate, in terms of its export figures, especially in 1978-79.

In the growth of the watches and clocks industry as a whole, the relative position of the LCD watch industry has shown a decline. Export sales in certain months in 1981 showed that, for the first time, the sales volume of quartz-controlled analog watches was significant when compared to that of LCD watches.

Until recently, there has been no in-depth study concerning the export marketing of the LCD watch industry. The objective of this study is to find out the existing strategies and policies of local LCD watch manufacturers in marketing their products abroad. Evaluation is based on information collected from the in-depth interviews with the local manufacturers. Recommendations are given based on the analysis.

The contents of this research are divided into four parts as follows:

Part One ----- Chapters 1 and 2 introduce some background information of the local LCD Watch industry.

Part Two ----- Chapter 3 offers a brief description of the export marketing activities of the chosen LCD watch manufacturers as well as the industry.

Part Three --- Chapter 4 analyses the primary and secondary information obtained from the research. It is followed by problem identification and evaluation.

Part Four ---- In Chapter 5, recommended solutions are given to local medium- and large-sized LCD watch manufacturers. These solutions are concerned with management as well as export marketing strategies. Chapter 6 concludes the main points, including achievements, of this report.

CHAPTER I

INTRODUCTION

1.1 Objectives

As new products, electronic digital watches were first exported from Hong Kong to overseas market in 1975, although their manufacture was started as early as 1972.

Before 1975, the local sales of electronic digital watches far exceeded the export sales, and the watches produced were mostly LED (Light Emitting Diodes), only a negligible portion was of the LCD (Liquid Crystal Display) variety.

From the year 1977 onwards, things began to change. Due to technological advancement, the LCD electronic digital watches were produced in mass quantity at low cost. Also, the LCD watches enjoyed overwhelming advantages over the LED variety: much lower battery power consumption, ease in reading, and simpler to manufacture. All this made it possible for Hong Kong manufacturers to concentrate on the production of LCD electronic digital watches.

During the past few years, Japanese LCD electronic digital watches had been entering and dominating the Hong Kong market. The local manufacturers, who produced relatively low end products, were forced to

turn to overseas markets and to give up local sales gradually.

The export growth of the LCD electronic digital watches had been very fast; in 1979, the growth rate was 128%, from HK\$929 million to HK\$2,122 million.

In 1979, Hong Kong was the third largest watches and clocks exporter in the world. The LCD electronic digital watches accounted for about half of the quantity (48.7%), while that of LED electronic digital watches accounted for only 0.6%.

It is very interesting to observe what will happen in the future. Will the export growth rate be increasing or decreasing? How the manufacturers, overseas buyers and government officials perceive the future? It is the focus of this study to investigate the export marketing activities of the local LCD electronic digital watch manufacturers and to offer them recommendations. In other words, the objectives are:

- . To identify and analyse problems facing the existing LCD electronic digital watch manufacturers;
- . To predict the future of the industry;
- . To offer recommended solutions to help solve the problems.

1.2 Scope

In general, electronic digital watches include both LED and LCD watches. In the recent three years, the production and marketing of LED watches had been greatly reduced. For example, in 1979, they accounted

for less than 1% of the total exports of watches and clocks. In view of this fact, the present study is confined to LCD electronic digital watches only, and, for simplicity, they will be abbreviated LCD watches throughout this report. Incidentally, the Hong Kong Census and Statistics Department also combined LCD and LED watches into a single item starting from 1981.

A list of about 800 watches and clocks manufacturers was obtained through the Department of Trade, Industry and Customs. At the same time, member lists from different organizations and associations were reviewed. They include: the Hong Kong General Chamber of Commerce, the Hong Kong Exporters Association, the Hong Kong Trade Development Council and the Hong Kong Federation of Industries.

Only firms with both manufacturing and export activities were considered in this study. They were classified into two groups, namely, the large companies group and the medium companies group.

Having reviewed the name lists, the writer started to contact some well-informed persons in the industry in order to know more about number of workers and sales volume of the listed companies. The information provided by these people were very helpful in selecting the companies to be interviewed. Subsequently, criteria for defining large and medium companies were set. Companies were considered to be large if they employed more than 100 workers and their

annual sales volume was more than 0.5 million units. Those with annual sales volume more than 0.2 millions but less than 0.5 million units and workers more than 25 but less than 100 were classified as medium companies. A total of 40 local LCD watch manufacturers were chosen; 16 of them large and the rest medium.

1.3 Methodology

The information input for this research report came from both primary and secondary data sources. The primary source was the writer's in-depth interviews with local LCD watch manufacturers. The secondary source was the government departments and trade associations, such as the Hong Kong Census and Statistics Department, the Hong Kong Trade, Industry and Customs Department, the Hong Kong Tourist Association and the Hong Kong Trade Development Council.

The Electronics Exhibitions

The writer attended two electronics exhibitions in October, 1980, in which the products displayed were mostly LCD watches. The two exhibitions were:

- (i) "Second Annual Consumers Electronics Show '80" held in The New World Hotel and The Regent Hotel.
- (ii) "Hong Kong Electronics Show '80" held in The Miramar Hotel.

During the visit, the writer talked casually to several local manufacturers. The ideas and information obtained were valuable to the design of the guidelines for the

in-depth interview at a later stage. (The guidelines are shown in Appendix I.) At the same time, the writer interviewed 47 overseas buyers to observe the fundamental buyers' behavior. (Three sets of questionnaire are shown in Appendix II.) These information were very useful in evaluating the marketing philosophy of the local LCD watch manufacturers.

Guidelines for In-depth Interviews

A set of questions was designed as guidelines for the in-depth interview with local LCD watch manufacturers. It consisted of seven sections, namely: general, price, product, distribution channel, promotion, sales force, competition and financial aspects. The objective was to obtain basic information from the local manufacturers.

A Pilot Test

A pilot test, aimed at the elimination of the possible ambiguities as might be contained in the guidelines for interview, was launched in January, 1981. Six local LCD watch manufacturers (two through personal connections) were approached randomly and interviewed. They were: three sales managers, two managing directors and one production manager. From these interviews, the questions in the original guidelines were revised which resulted in the finalized form as shown in Appendix I.

The In-depth Interviews

Twelve letters describing the research study and

requesting appointment for an interview were sent to the chosen manufacturers. Only two invitations were granted. Faced with this poor response rate, the writer tried to communicate directly with the chosen manufacturers through the telephone. Although a lot of difficulties were encountered, the writer was able to arrange twenty interviews with the chosen manufacturers. Nine of them were large firms and the rest were medium.

The interviewees were top managers of the companies concerned. Most of them were the bosses. Some of them were marketing managers, they knew very well of the company policy and marketing philosophy. All interviews were conducted in the interviewees' offices. On the average, each interview lasted about one and half hours. Most of the interviewees were very co-operative. They answered every question. Few interviewees kept their promotion and financial aspects in strict confidence and were very reluctant to disclose.

Information gathered from the interviews were memorized and reproduced by the writer shortly after leaving the offices. The reason that notes were not taken or taped during the interviews was mainly due to the fact that interviewees were unwilling to disclose more. Another reason was that the writer had to shorten the interview time as the interviewees were all very busy (during tape-recording process, change of tapes needs time and causes distractions). In other words, it was for the conveniences of both the writer and the interviewees

that notes were not taken during the interviews.

The whole process of in-depth interviews with local LCD watch manufacturers lasted for about two months, from February to April, 1981.

Environmental Information

In order to know more about the export environment of the Hong Kong LCD watch industry, the writer had conducted talks and interviews with competent people from private sectors, trade associations as well as government departments.

People from private sectors:

- (i) Officers of overseas buying offices;
one from US and one from West Germany;
- (ii) One local bank manager;
- (iii) Executives of a buying agent and an export firm.

People from trade associations:

- (i) A manager of the General Chamber of Commerce;
- (ii) An officer of the Hong Kong Federation of Industries;
- (iii) An officer of the Chinese Manufacturers' Association.

People from Government:

- (i) Officers of the Hong Kong Trade, Industry and Customs Department;
- (ii) Officers of the Hong Kong Census and Statistics Department.

CHAPTER II

TECHNICAL ASPECTS OF LIQUID CRYSTAL AND BACKGROUND INFORMATION OF THE HONG KONG LCD ELECTRONIC DIGITAL WATCH INDUSTRY

The purpose of this chapter is to describe briefly the development and production features of the Hong Kong LCD watch manufacturing industry. The relevant information were obtained from interviews with local manufacturers, from Hong Kong government departments and other private and trade organizations.

As this research is concerned with LCD device which is an advanced technical product, the writer feels that it may be necessary to acquaint readers with some basic technical aspects.

2.1 The Technical Aspect of Liquid Crystal

Some of the properties of liquid crystals were known in the experiments of late 19th century.¹ It was noted that these complex organic substances could flow and assume the shape of their containers like liquids, but that their molecules also aligned themselves into

¹The HP Magazine and Product Catalog. The Hewlett-Packard Personal Calculator Digest, p. 4. Volume Six. Palo Alto, California: The Hewlett Packard Ltd., 1980.

crystal-line lattices. More recently, scientists found that the lattices of some liquid crystals tended to be affected by an electrical field, and that these lattices could in turn alter the transmission of the light. The LCD was born.

There are many types of liquid crystal substances, most of them with tongue-twisting names such as p-ethoxybenzylidene-p-aminobenzonitrile and n-p-methoxybenzylidene n-butyl aniline. The material used and the type of display depends upon the application.

"Dynamic Scattering" and "Field Effect" are two types of displays used in LCD devices. The "Field Effect" display, a recent liquid-crystal innovation, is only used in very expensive devices, such as high quality calculators. On the other hand, the "Dynamic Scattering" display is used in LCD watches, such as those produced by local manufacturers. Since this report is concerned with LCD watches, the discussion will be confined to "Dynamic Scattering" display.

Dynamic Scattering Display

As shown in Fig. 2.1.1, there is a distance of about $1/2000$ th of an inch between the two glass plates where a very thin film of liquid crystal is sealed. Light is easily transmitted through the glass plates as the molecules of the crystals are normally aligned in uniform lattices.

Under some circumstances, the liquid crystal molecules can be forced out of their lattices and become

disarrayed. This is done if a transparent electrode is added to each glass plate, and an electric field (could be an ordinary watch battery) applied across them as shown in Fig. 2.1.2. Therefore, instead of being transmitted, light going through the crystal substance is scattered, and the display seems to become translucent. It is by this theory that the display pattern on the LCD watch is designed.

2.2 Background Information of The Industry

The electronic digital watch industry was the newest member of the watches and clocks family. In 1972, there were only three factories assembling LED watches with wholly imported materials. By the end of 1980, there were already 657 factories manufacturing different kinds of LCD watches.

It was rather regrettable that before 1977, there were no separate figures for LCD watches. All relevant information were for the watches and clocks industry as a whole. In fact, this is one of the limitation of this study. Meanwhile, statistics on the watches and clocks industry will be used as a reference.

Establishment and Employment

The growth of the number of factories and employees of the Hong Kong watches and clocks industry is shown in Table 2.2.1. The table shows that the

FIGURE 2.1.1
TRANSPARENT LIQUID CRYSTAL DISPLAY

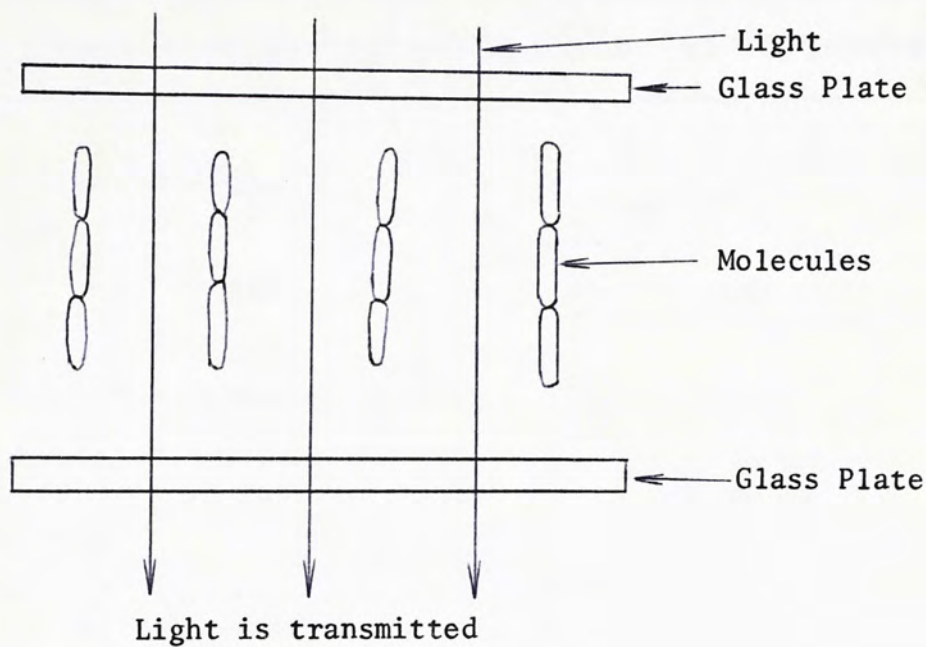


FIGURE 2.1.2
TRANSLUCENT LIQUID CRYSTAL DISPLAY

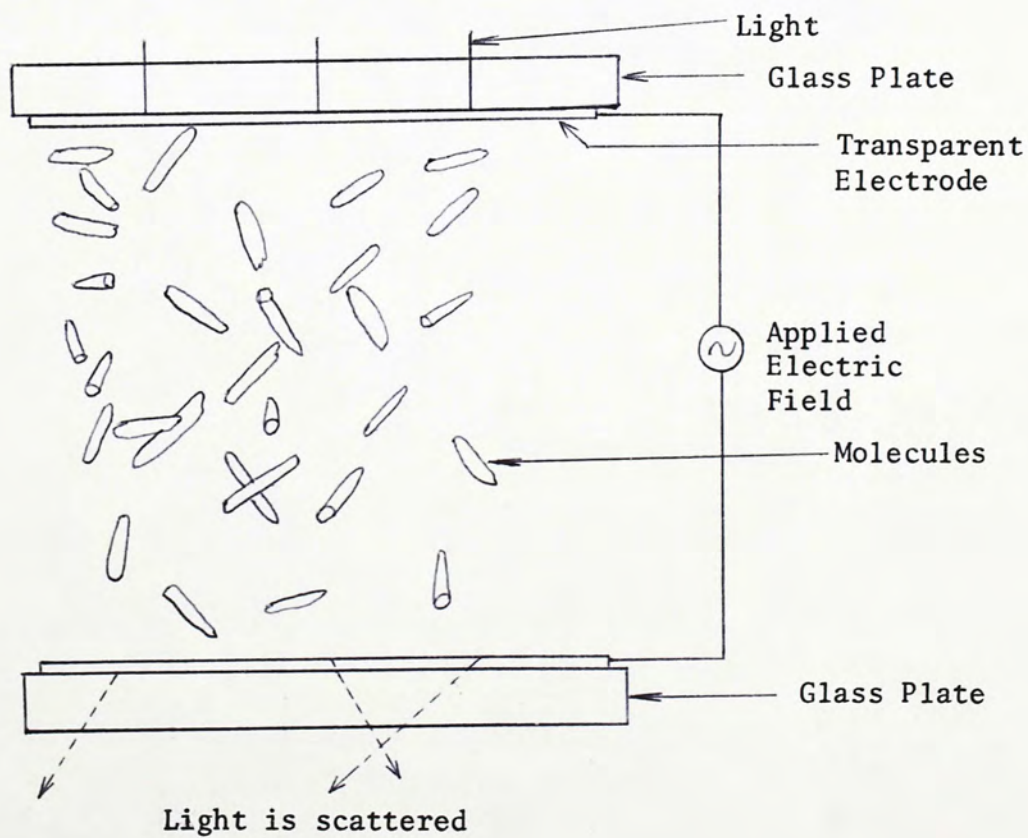


TABLE 2.2.1

GROWTH OF ESTABLISHMENTS AND EMPLOYMENT OF
THE CLOCK & WATCHES INDUSTRY (1975-79)

Year	Number of Factories	Number of Employees
1975	237	9,000
1976	345	13,000
1977	368	15,000
1978	530	21,000
1979	770	32,000

Source: Hong Kong's Industries 1980. The Trade, Industry and Customs Department, Hong Kong Government, February 1981.

number of employees and factories for the watches and clocks industry as a whole, had been increasing in recent years, especially from 1978 to 1979.

Production Processes

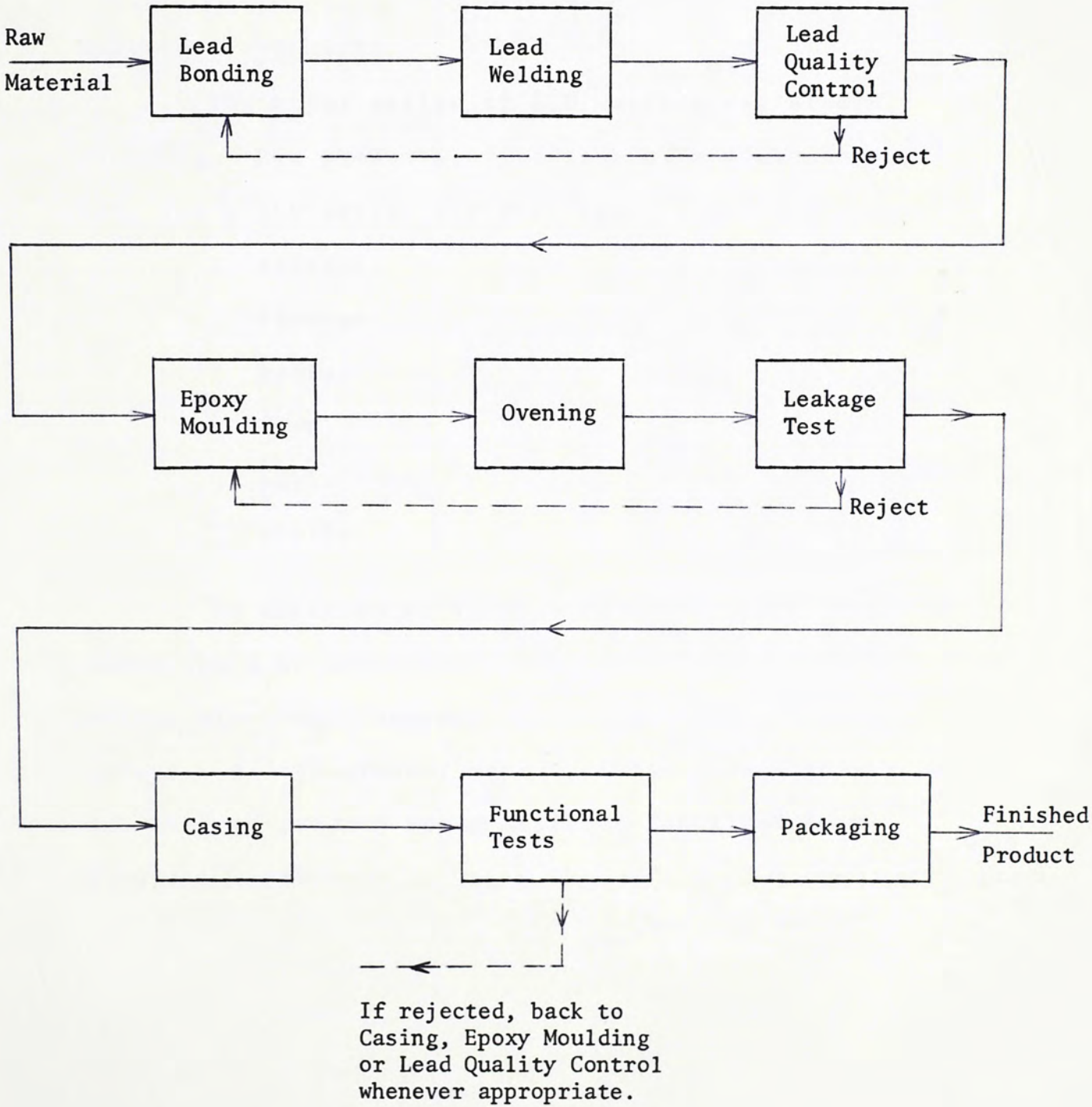
In a typical local LCD watch manufacturing factory, the production department was the most labor-intensive department. People in this department included: production manager, general foreman of various lines, line foreman, and line workers.

In the production process, every line worker was assigned a pre-planned and pre-tested task. In fact, the line foreman specified necessary steps of operation for the workers. These steps could be one of the processes, such as lead-bonding, lead-welding, epoxy moulding, packaging, ... etc. as illustrated in Fig. 2.2.1. Different check-points were set up, such as lead quality control, leakage test and functional tests. Whenever rejects were found, defective units would be returned to the previous steps and re-processed. Accepted products would be stored and shipped whenever appropriate. On the contrary, products rejected would be sent back to the production department and reworked.

Material Supply

The basic components required to assemble a simple LCD watch were: LCD displays, integrated circuit chips, watch belts and cases, printed circuit boards and epoxy. In fact, the quantity of components

FIGURE 2.2.1
PRODUCTION PROCESS OF LCD WATCHES



differed according to different designs of the watch.

Cases and belts were available in Hong Kong, while the other components had to be ordered abroad. Japan was the largest supplier, followed by the United States.

Variety of Products

The model design of LCD watches was always changing. New products often took over older ones. Yet, for a LCD watch, the most basic functions were:

- . seconds;
- . minutes;
- . hours;
- . days;
- . weeks;
- . months.

In addition to these fundamental functions, there could be other varieties, such as chronometer, melody alarm and counter. They were tailored for orders. At the present moment, local manufacturers are able to produce up to thirteen functions in a single LCD watch.

CHAPTER III

CURRENT EXPORT MARKETING ACTIVITIES OF THE HONG KONG LCD WATCH INDUSTRY

The objective of this chapter is to give a brief description of the current marketing activities of local LCD watch manufacturers. This will facilitate the analysis and evaluation in next chapter.

3.1 Additional Information on Production and Product Design

In general, there were two approaches to production by manufacturers -- production to inventory and production to order. Through research, it was found that most of the manufacturers followed the "production to order" approach rather than "production to inventory." The reasons behind this were:

- (i) too many orders to fill;
- (ii) most of their products were fashionable items.

On the problem of product design, only the very large manufacturers have their own design departments. Others would either accept orders along with specifications given or subcontract the design work to overseas engineering firms. The major emphasis of LCD watch design was on the outlook and functions of the product.

For novelty items, outlook was more important. Some of the watches produced by local manufacturers were shown in Figures 3.1.1 and 3.1.2.

3.2 Export Marketing of LCD Watches

Almost every chosen manufacturer was export-oriented. Only one company had its local sales accounting for more than 20% of the total sales volume, due perhaps to the fact that it had spent considerable money in sales promotion locally two years ago. The manager of that company admitted that their local sales were declining and they would concentrate on export marketing in the future. Other companies claimed that majority of the sales were to overseas with local sales accounting for less than 10%.

Status in the World Market

Based on information obtained from the Census and Statistics Department of the Hong Kong Government, the following are the export sales of watches and clocks by major countries/district of the world in 1979:

Country/District	Sales Value (HK\$ Million)	Sales Volume (1,000s)
Switzerland	\$ 7,237	30,266
Japan	4,031	25,242
Hong Kong	3,516	73,390

Source: United Nations Trade Statistics 1979. The Census and Statistics Department, Hong Kong Government Press, January 1981.

FIGURE 3.1.1

MULTI-FUNCTIONAL LCD WATCHES MADE IN HONG KONG



FS1002BG
6 Digits,
7 Functions,
1/100 Chrono,
Gents
Super Slim Watch

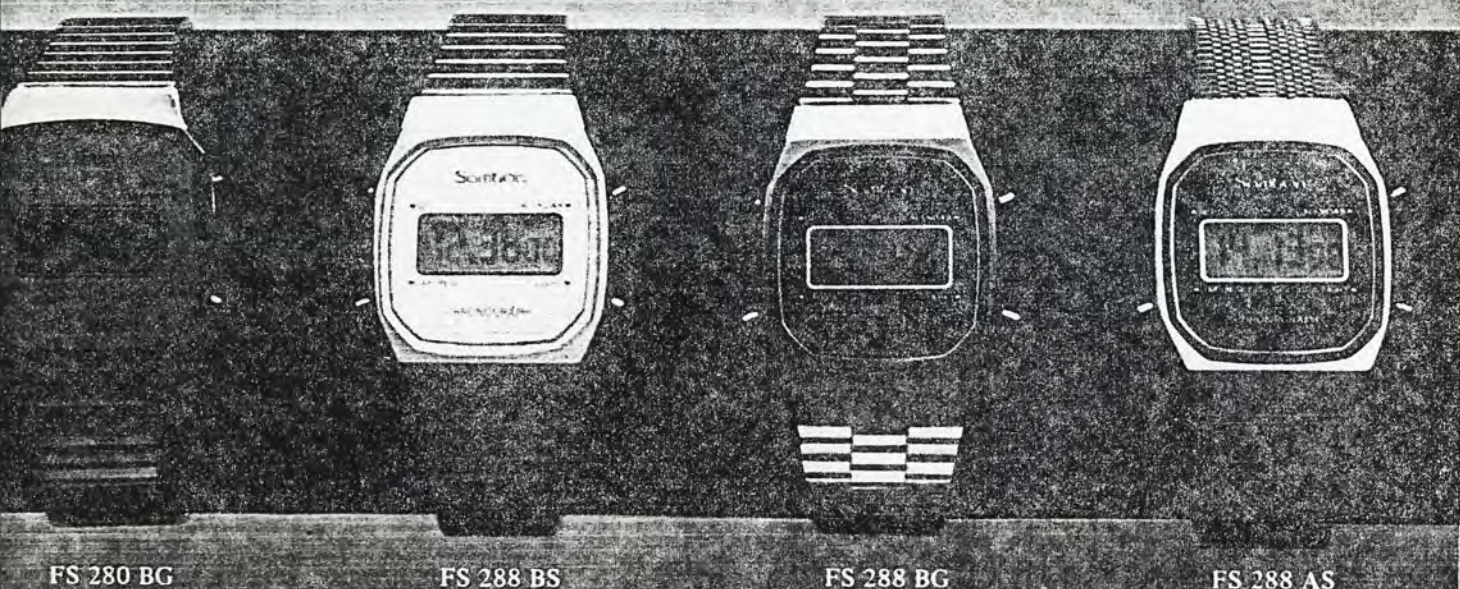
B020BG
3½ Digits,
5 Functions,
Gents

FS280BG
6 Digits,
7 Functions,
1/100 Chrono,
Gents
Super Slim Watch

FS288AS
6 Digits,
7 Functions,
1/100 Chrono,
Gents
Super Slim Watch

FS288BG
6 Digits,
7 Functions,
1/100 Chrono,
Gents
Super Slim Watch

FS288BS
6 Digits,
7 Functions,
1/100 Chrono,
Gents
Super Slim Watch



FS 280 BG

FS 288 BS

FS 288 BG

FS 288 AS

FASHIONABLE LCD WATCHES PRODUCED IN
HONG KONG

ALL NEW SLIM LINE MODELS from PEARL!

All electronic quartz watches should have this
much quality, style, and technology!



Pearl offers a wide range of electronic quartz watches for men and women with the kind of saleability that will make your new time program an instant success. New slim 5 function, slim chronograph, slim alarm, slim chrono/alarm and slim melody/chrono/alarm models show off our engineering skill and innovative design capability. Full QC and 12 month guarantees ensure success in the marketplace. Private labels are available. Production exceeds 100,000 watches per month. Send today for catalogs and more information.

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all slim like this

It was also learnt that, in the same year, Hong Kong's export of LCD watches were about half of the total export value of watches and clocks. This is shown in Fig. 3.2.1.

From the above table, it was not difficult to infer that Hong Kong had been producing low-price products compared to Japan and Switzerland.

Major Export Markets

Hong Kong has been exporting LCD watches almost to every corner of the world. The largest market was U.S.A. followed by F.R. Germany as illustrated in Table 3.2.1.

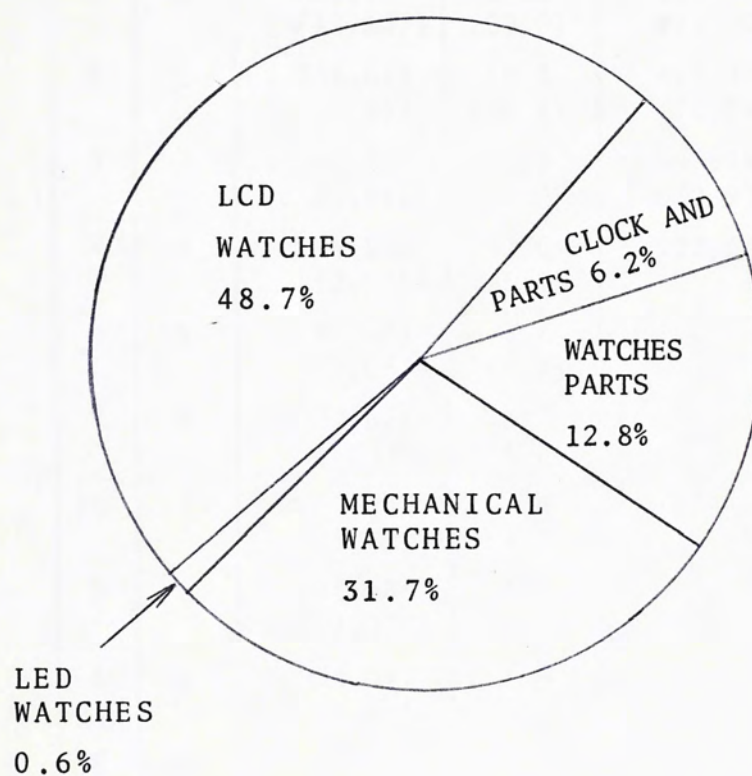
During the interviews, the writer found that all the manufacturers exported their products to U.S. and Europe although they expressed their interest in world-wide markets. This is illustrated in Table 3.2.2.

Price

Most of the firms set their price according to competitive market prices, few of them using cost-plus method of pricing.¹ The usual markup of the industry was about 7% at the time of the study. The manufacturers expressed their seriousness about the cost-plus

¹McCarthy, E. Jerome. Basic Marketing. Illinois: Richard D. Irwin, Inc., 1977, sixth edition, p. 691.

FIGURE 3.2.1
COMPOSITION OF HONG KONG WATCHES AND
CLOCKS EXPORT IN 1979



Source: Hong Kong's Industries 1980. Trade, Industry and Customs Department, Hong Kong Government Press, February, 1981.

HONG KONG DOMESTIC EXPORTS OF LCD WATCHES FOR 1979 & 1980

(SITC 885112)

- By Major Markets -

Value: HK\$'000

Quantity (in brackets): '000

Major Markets (Selection based on 1980 cumulative figures of VALUE)	Ranking		1979		1980		% Change 80/79
	79	80	Value (Qty.)	% Share	Value (Qty.)	% Share	
<u>WORLD</u>			2,122,414 (41,219)	100.0 (100.0)	3,143,859 (82,145)	100.0 (100.0)	+ 48 + 99
U.S.A.	1	1	584,639 (11,147)	27.5 (27.0)	842,258 (21,703)	26.8 (26.4)	+ 44 (+ 95)
F.R. Germany	2	2	388,613 (6,562)	18.3 (15.9)	467,395 (10,040)	14.9 (12.2)	+ 20 (+ 53)
U.K.	3	3	262,115 (5,052)	12.3 (12.3)	295,183 (7,973)	9.4 (9.7)	+ 13 (+ 58)
France	4	4	104,532 (2,225)	4.9 (5.4)	228,535 (5,786)	7.3 (7.0)	+119 (+160)
Italy	6	5	80,431 (1,630)	3.8 (4.0)	168,576 (4,333)	5.4 (5.3)	+110 (+166)
Peninsular Spain	7	6	77,625 (1,637)	3.7 (4.0)	119,435 (3,470)	3.8 (4.2)	+ 54 (+112)
Austria	10	7	62,702 (1,701)	3.0 (4.1)	111,444 (4,185)	3.5 (5.1)	+ 78 (+146)
Netherlands	8	8	75,106 (1,337)	3.5 (3.2)	95,540 (2,337)	3.0 (2.8)	+ 27 (+ 75)
Japan	5	9	84,647 (1,918)	4.0 (4.7)	90,859 (2,893)	2.9 (3.5)	+ 7 (+ 51)
Switzerland	9	10	74,741 (1,440)	3.5 (3.5)	83,728 (2,047)	2.7 (2.5)	+ 12 (+ 42)
Belgium/Luxembourg	11	11	36,519 (762)	1.7 (1.8)	65,420 (1,753)	2.1 (2.1)	+ 79 (+130)
Argentina	12	12	35,055 (743)	1.7 (1.8)	64,938 (1,809)	2.1 (2.2)	+ 85 (+143)
Canada	15	13	26,391 (402)	1.2 (1.0)	57,184 (1,245)	1.8 (1.5)	+117 (+210)
South Africa	14	14	29,886 (585)	1.4 (1.4)	56,377 (1,520)	1.8 (1.9)	+ 89 (+160)
Australia	13	15	30,723 (592)	1.4 (1.4)	49,219 (1,024)	1.6 (1.2)	+ 60 (+ 73)
E.E.C. (9)			961,657 (17,776)	45.3 (43.1)	1,340,389 (32,646)	42.6 (39.7)	+ 39 (+ 84)

Source: Hong Kong Trade Statistics, The Census and Statistics Department, Hong Kong Government Press, February 1981.

TABLE 3.2.2
 MAJOR EXPORT MARKETS OF THE CHOSEN
 MANUFACTURERS IN 1981

Company	Size	U.S.	Europe	Canada	South America	Mid- East	S.E. Asia & Africa
A	Large	1	2				3
B	"	2	1				3
C	"	2	1				
D	"	1	2	3	4		
E	"	1	2				
F	"		1				
G	"		1				
H	"	1	2			4	3
I	"		1				
J	Medium	2	1				
K	"		1				
L	"		1				
M	"	1	2				
N	"	2	1				
O	"	1	2				3
P	"	1					
Q	"		1				
R	"		1				
S	"	1					
T	"	1	2				

Note: "1" -- the most important market;
 "2" -- the second important market;
 & so forth.

method, yet they always could not do much but to follow the prevailing market price. They explained that, at first, the unit costs of watches are figured. A reasonable margin, that will bring back a "fair" return on investment, is then tacked. This imposes circular reasoning, as price, which influences sales, depends upon full cost, which in turn is partly determined by the volume of sales. In fact, it is seldom a rigid "plus". Instead, it is flexible, depending on the behaviour of customers.

Distribution Channels and Promotion

The large manufacturers usually set up their own sales and service branches overseas, such as in the United State and United Kingdom. They preferred employing those Chinese who lived or were born there to be their overseas staff.

For the medium companies, they usually dealt with the local export firms instead of the final customers. Many of these manufacturers had little knowledge of their customers, even if they knew to where their watches were exported. Surprisingly, some of the large manufacturers also sold part of their products through export firms.

Both medium and large firms advertised in Hong Kong magazines which were sold overseas, such as Asian Sources, Timepieces and the like. The manufacturers politely told the writer that government departments

were useful, yet they indicated they seldom made use of these departments.

Only the large manufacturers participated in the trade exhibitions, the medium ones usually relied on few "big" clients and seldom took initiative to find new customers.

Sales Force

The term "sales force" referred to persons who went abroad to initiate or deal business transactions with customers. The quality of the sales force was found to be quite poor in the local LCD watch industry. There was no university graduate nor polytechnic diploma courses graduate. The highest qualification that few salesmen possessed was the certificate from some technical institutes. Obviously, educational qualification was not the sole criterion to judge the quality of the sales force. Based on the interview results, most of the firms did not provide enough training to their salespeople. Besides, the salespeople were mostly paid by fixed salaries.

Only the large manufacturers were able to employ salespeople; in some medium manufacturing companies, the partners usually performed the sales tasks, but then they dealt with local export firms only.

Competition

All the competition came from local rival firms. Unlike textile and transistor radio industries, Taiwan

and Korea were producing different LCD watches which were at higher ends. To take Taiwan as an example, they produced LCD watches with stainless steel belt and sold at high prices, while those produced by Hong Kong manufacturers were of alloy belts. Hence, Taiwan and Korea were not competitors in this industry.

In the local scene, competition existed regardless of firm size. In other words, large manufacturers might encounter competition from small companies as well as from medium firms. Sometimes the manufacturers did not even know who their competitors were. Oddly, the only thing that they were competing on was the selling price.

Financial Aspects

This is the most sensitive aspect and some of the manufacturers were simply unwilling to answer questions.

Nevertheless, most of them were quite helpful and tried to answer the writer within their business "confidential" limits.

Most of the manufacturers disclosed that they delivered products only when the buyers' letter of credit was confirmed by the manufacturer's banks. They were financed by the overdraft facilities called "Packing Loan". A manufacturer could overdraft approximately up to 50% of the amount of the letter of credit that he had received. Sometimes the

overdraft percentage was influenced by other factors, such as his credit records and relationship with the bank.

Most of the large companies were organized by partners, while the medium ones were also mostly partnerships, with few sole ownerships. Their initial source of finance usually came from their own or family members' capital, very large companies did get support from some financial groups.

The average cost of a LCD watch was composed 70% of materials, 5% rent, 10% labor, and 15% overhead. In fact, these percentages varied from factories to factories. Being asked about their profit margin, the manufacturers were very reluctant to disclose although they indicated that they would like their markup to be not less than, say, 7%.

Other Aspects

During the interviews, the writer found that the manufacturers were not clear about their future. Only one manufacturer pointed out that his factory was replacing LCD watches by quartz-controlled analog watches. He added that this was the only way to get rid of the recent price war.

His opinion was confirmed by government statistics:¹ there was a new item called "Electronic

¹Hong Kong Trade Statistics, February, 1981, The Census and Statistics Department, Hong Kong Government.

Watches Quartz Analog" whose export sales for February, 1981 was as follows:

Country	Export Value (HK\$1,000)
USA	\$ 17,350
Netherland	8,910
F. R. Germany	4,795

This export value was quite significant when compared to the same month's LCD & LED watches export sales:

Country	Export Value (HK\$1,000)
USA	\$ 54,760
F. R. Germany	19,000
Italy	13,000

Although this is not to say that quartz-controlled analog watches would take over LCD watches soon, it does show that new ideas worked.

Opinions From The Oversea Buyers

Unlike the local manufacturers, the oversea buyers were approached without their prior consents. (As indicated on the chart "Number and Nature of

Overseas Buyers Interviewed (in the two exhibitions)" in Appendix II.).

The overseas buyers were of the consensus that they were rather confused at the LCD watches produced in Hong Kong. They complained that most of the products looked almost the same. This made it impossible for those buyers to differentiate the watches other than on the basis of their selling prices.

Asked if they would buy more LCD watches from Hong Kong when there were more varieties, the answer was positive. Besides, they considered the internal environments and reputation of the Hong Kong manufacturers as important factors.

Although some of them admitted that they bought Hong Kong LCD watches in view of their cheaper prices, they did not deny the possibility that they would buy elsewhere even if the prices were lower.

To conclude, the writer felt that the overseas buyers were not happy about the price-cutting strategy carried out by the local LCD watch manufacturers.

CHAPTER IV

ANALYSIS OF PROBLEMS IN CURRENT EXPORT MARKETING PROGRAM OF THE HONG KONG LCD WATCH INDUSTRY

The purpose of this chapter is to evaluate the current export marketing activities of the Hong Kong LCD watch industry as a basis for recommendations to the manufacturers at a later stage. In addition, some predictions on future development of the industry will be given at the end of this chapter.

4.1 Internal Problems

From the writer's point of view, all manufacturing companies interviewed had some common internal problems. These problems can be classified into managerial and technical.

Managerial Problems

The LCD watch industry was relatively new in Hong Kong. During the past seven years, it has substantial growth. Many of the firms, especially medium-sized ones, were not aware of the necessity of planning. They were oriented toward "order-taking," trying merely to satisfy customers' short-term needs.

Most of the manufacturers did not have the willingness to search current marketing information

and to cultivate new and potential markets. Their explanation was that they were too busy in filling the orders. This put them in a very dangerous position because they would not be able to anticipate forthcoming developments and to plan for proper actions to deal with such developments.

Technical Problems

There was a lack of clear marketing concept or willingness to accept that a lack of marketing concept would lead to ineffectiveness. In other words, the Hong Kong LCD watch manufacturers had not been "educated" that their negligence might cause them to pay a high price in the future. Moreover, there were very few technically competent marketing people to carry out the concept even if it is properly and clearly formulated.

Most medium-sized manufacturers relied on local export firms, they did not have direct contacts with their final customers. They could easily be manipulated by the export firms. It seems that language barrier was one of the reasons for this reliance.

Capital constraints was another technical problem. For the medium-sized firms, it was rather difficult for them to get bank loans. This affected them adversely in product design, promotion and selling activities.

4.2 Environmental Problems

The Price War

The local manufacturers were competing on their selling prices, they sometimes even quoted lower-than-cost prices. This was one of the fatal mistakes that they had committed.

Problems of New Market Exploration

The local manufacturers had expressed their world-wide exporting interests, but it was sometimes burdensome to explore markets in Eastern European and African countries. As there were inadequate import/export agents and foreign exchanges in these countries, they could only be explored at a slower pace although the U.S. and European market seemed to approach saturation.

Other Factors

Apart from the general trend of increasing labor costs in the industry, work force recruitment was also a headache to the factories located at new industrial estates or remote areas where the transportation and labor force supply have not yet been improved. Consequently, worker turnover rate was relatively high.

The changing demand of customers also imposed a burden on present production. Along with the strengthening of U.S. dollar, there may be a shift in U.S.

demand toward higher-end products. Would other countries follow? Or, would they at the present taste?

4.3 Predictions on Future

Developments

Given the keen competition in this industry, the larger firms were in a much better position than their smaller counterparts, in all aspects. Therefore, the smaller firms would either be wiped out in the future or have to move up to larger scale if some of them were able to do so.

On the product side, the future trend would be toward newer designs or other new products, such as quartz-controlled analog watches.

Although there are many problems perceived by local manufacturers in exploring into new markets (such as African, South American, Middle East and Eastern European Countries), nevertheless, the attention to these markets will grow with time.

As there are more and more manufacturers seeking for direct contacts with final customers in order to enhance their profit, the role of export firms will become advisory in the future, e.g., providing market information, product design and promotion services. Otherwise, they have to shift to other lines of products.

CHAPTER V

RECOMMENDATIONS TO LOCAL LCD WATCH MANUFACTURING FIRMS

To help solve problems facing the local LCD watch manufacturing firms, recommendations are made in respect to management, engineering and finance as well as marketing. Recommendations to large firms are discussed first, followed by recommendations to medium-sized companies.

5.1 Recommendations to Large Manufacturing Firms

On Marketing

From the interviews, it has been found that most of the marketing managers and top managers lack marketing information as well as marketing concept. Moreover, their marketing objectives are sometimes not clear.

(i) Marketing Objectives:

To improve this situation, they should, at first, define their marketing objectives. For example, to increase sales by 15% or to have a bigger market share of 5% by the end of next year. The objectives may also be stated in terms of distribution, communication,

product, price and sales force.

On setting marketing objectives, the top-level executive should work with their subordinates, especially the marketing manager, as a team. Too low a target would lead to incentive problems, employees may be reluctant to work hard. On the other hand, adverse impact on staff morale would occur if the target is set too high or unrealistic, these people could be frustrated even if their best efforts were tried. Hence, a realistic marketing objective could help the firm in avoiding these problems. The best occasions to review the marketing objectives are in regular meetings (such as monthly and weekly company and departmental meetings) with senior staff and in performance coaching with ordinary workers.

(ii) Profile Information:

Before defining marketing objectives, the marketing manager should collect and analyse the appropriate profile information, namely, competitors, market, customer and product/company. He should be able to submit reports on all these profiles to the top manager.

On the other hand, in view of the poor quality of marketing people in local firms, the above tasks seem to be rather difficult to accomplish. To overcome this difficulty, it is up to the top management to decide whether to employ qualified outside marketing

consultants to do the job or to maintain the status quo.

(iii) Marketing Strategy:

After setting the objectives, the company should proceed to design their specific marketing strategy. For example, the strategy might be either to set up 2 overseas sales and services branches, or to design 6 different LCD watches by the end of next year. The strategy could be in either one of the areas of distribution, communication, product price and sales force. Owing to the lack of qualified marketing people in the LCD watch industry, the marketing strategy could be designed with the help of outside marketing consultants when appropriate.

Since firms are different in terms of their backgrounds, internal problems, financial capabilities, management philosophies etc., it was of utmost importance for each firm to identify its marketing weaknesses. This is a necessary premise in designing an appropriate marketing strategy. For example, if a company had difficulties in raising large amount of fund, it should not spend too much money in, say, newspaper advertisement and the like. The effect is that the money left down would not be sufficient to finance big orders when offered as a result of the promotion. The top management of that company should evaluate carefully the application of their limited fund.

(iv) Control of the Marketing Program:

The marketing program should be evaluated after it had been implemented for a certain period, e.g. 3 months.

If the marketing objectives are not met, the marketing manager should report to top management and necessary adjustments should be effected accordingly. For example, if none of the targeted 6 new LCD watches (for the entire year) is ever designed, then top management may decide to recruit more qualified product design engineers, or to initiate other actions to expedite the designing phase.

On the contrary, if the marketing objectives are achieved, the marketing program should be allowed to proceed in accordance with its original schedule. For example, if one overseas sales and services branch is set up in 6 months (the original schedule is to set up 2 branches in a year), then top management should let this marketing program proceed without further adjustments.

(v) Improvement of Sales Force Quality:

Manufacturers in the LCD watch industry should provide appropriate training for their existing sales people, probably sending them to part-time classes to be arranged by the firms together with Hong Kong educational institutes. They could be the Hong Kong Polytechnic, the Hong Kong University or the Chinese

University of Hong Kong.

Moreover, it is surprising to learn that most salespeople in the industry are working without commissions. Unlike other employees, salespersons are rather aggressive. To take advantage out of these peoples' unique strength, employers should compensate them fairly. Without adequate incentive, morale of these salespersons and sales revenue of the company would be very much adversely affected.

On Engineering

At the time of writing, it was learnt that the manufacturers of LCD watch are competing solely on price. But price is only one constituent of the marketing mix which, besides price, also includes product, sales force, distribution and promotion. Moreover, it is very unwise to cut selling prices as a means to get more orders at a time when labor cost and rental expense are increasing.

To be competitive, the LCD watch manufacturers should concentrate on product engineering to initiate product modification and to develop new products. By doing so, new product life cycles will be created and higher profit margin achieved.

With product modification and/or new products, the LCD manufacturers would be enabled to attract the attention of customers. Unlike the concept of "customer is king", the objective of product engineering is to

get customers to the product, not to get manufacturers to customers' specifications. This could change the existing price cutting competition to product competition which is more favourable.

To cope with rising labor cost, appropriate capital-intensive methods may be applied, depending on individual firm's financial position and product marketability.

On Other Aspects:

From the writer's observations, the present promotional activities of the industry are not enough. More proper advertisement in overseas magazines, detailed catalogs, attendance to trade fairs both locally and abroad, and more overseas sales and service centres should be encouraged. Of course, cost is a factor which should not be overlooked, yet promotion is vital in attracting more new customers. It is the responsibility of the top management to weigh the pros and cons.

The manufacturers should try to make use of the services offered by government departments. After all, these services are useful and free of charge.

New market exploration efforts should be strengthened through closer coordination between the manufacturers, their trade associations, and the relevant government departments.

5.2 Recommendations to Medium-Sized Manufacturing Firms

On Planning

Judging from the information collected by the writer, it is found that the firms are almost pre-occupied with filling orders to satisfy customers' short-term needs. This kind of orientation could lead to disaster in some foreseeable future. The medium-sized manufacturers should reorient their thinking and give a due amount of management emphasis to proper planning. For example, the director could have devoted 90% of his time in supervising production, auditing the quality of LCD watches, etc., yet he should spend at least an hour early in the morning to review the factory's current activities, to collect information on competitors' activities, to know the fashionable items for next year, ... etc. and to plan his activities well in advance of the next production schedule.

The benefits that can be brought about by these activities may not be apparent in the short run, yet, in the long-term sense, good planning will help the firm to explore greater opportunities, avoid pitfalls, and improve co-ordination. For example, a mass production of one current fashionable product are convenient and less in cost, yet the adverse impact in future (when it is not longer popular) could be a disaster, such as high inventory cost, slow learning

curve for new products and frustration brought to employees as well as to the top management. Furthermore, emphasis should be placed on the implementation of plans, which is equally important to the planning process itself.

On Finance

Medium-sized companies are generally having more financial burdens than their large counterparts, such as sources of financing and difficulties in borrowing.

To help reduce the burden, accepting sub-contracts from larger companies may be considered. These orders should be for products in which the medium-sized companies are specialized. As explained by learning curves, cost of production would be reduced as volume picked up, while profits would also be more. A worker, who could bond 400 ten-functions LCD MOS chips per day, is to be paid the same daily wage of HK\$60 if he is to bond 200 new eleven-function LCD MOS chips for that period of time. This implies he needs more time to learn the faster way in bonding these new products. Besides, bonding the old chips continuously as time goes by, that work could possibly increase his production, say, to 450 per day. It is the medium-sized manufacturers' responsibility to convince the large companies to provide such sub-contracts.

There is also a lack of good internal financial

control in the medium-sized forms. The top management should pay more attention to this aspect. They should be aware that a company could be in trouble if its financial control is loose even when marketing and production look good. As most of the top managers are lack of financial knowledge, they should consult qualified accountants or even to ask these accountants to work for them on a part-time basis, say, few hours per week. On a long-term sense, these top managers should try to attend some evening classes in accounting and finance. A compromise between company objectives and financial strength may be helpful in this regard.

On Other Aspects

Being restricted by their financial strength and a lack of overseas connections, the medium-sized manufacturers should protect themselves by creating a favourable image to attract business. The key factor is reliability. This implies prompt delivery and conformity with customers' specifications. Furthermore, the cost of production is a fundamental consideration in price determination in the Hong Kong LCD watch industry. For example, the cost prediction on materials in the next 6 months would enable the marketing manager to quote a proper selling price to his clients. Therefore, it is necessary for the local manufacturers to recruit qualified accounting personnel in order to produce timely and effective information.

As manufacturers of medium size companies are generally lack of higher academic trainings, this may, in some extent, affect their attitudes towards a well established production plan. They may have spent many efforts and resources in it and they have full confidence to carry the plan throughout. In other words, they do not want to change the plan even if situations require. The manufacturers should bear in mind that to modify or even to give up such a plan undoubtedly means that they have lost money, yet to stick to an inappropriate plan (due to environment change) could cost them more.

CHAPTER VI

CONCLUSION

The problems that the local LCD watch manufacturers are currently facing may be categorised into two classes:

- (i) Marketing and engineering;
- (ii) Planning and finance.

The former class should be the primary concern of large manufacturing firms while the latter are the major problems for medium-sized firms.

For large manufacturing firms, formulation of effective marketing program, strengthening the quality of sales force and improvement on product engineering are recommended by the writer as the means to help solve the problems they faced. For the medium-sized manufacturers, emphasis shift from short-term orientation to longer-term planning as well as exploitation of opportunities for subcontracting from large firms are recommended. It goes without saying that, in trying to make these changes or adjustments, both large- and medium-sized manufacturers should carefully evaluate and bear in mind their own strengths and weaknesses.

APPENDIX I
GUIDELINES FOR THE IN-DEPTH INTERVIEW
WITH MANUFACTURERS

General

- (1) When did you start your business?
- (2) What is the nature of your business?
Are they mainly on exporting or with some local sales? (Please express them in relative percentages.)
- (3) How many employees do you hire?
- (4) What is your annual sales volume in 1979 and in last year?
- (5) When is your peak production period? And, when is your lowest production period?
- (6) Where do you purchase your raw material, say, Japan, U.S.A. or other places?
- (7) Who are your overseas customers? Please name these countries and express the sales volumes in relative percentages.
- (8) Have you set up sales and services branches in the overseas countries as indicated in Q. (6)?
- (9) Do you plan to sell your products to countries other than those that you have just mentioned? What difficulties will you foresee?

- (10) Could you comment on the future development, namely, growth, status quo or decline of the Hong Kong electronic LCD (Liquid Crystal Display) watch industry in the coming years?
- (11) What is your view about the future prospect of your company?
- (12) Are there any difficulties that your company may possible encounter in the coming years, such as, the lack of marketing opportunities, skilled labourers, raw materials, finance ... etc.?

Price

- (13) How do you set the price of your products?
- (14) Is an identical product sold at different prices in various countries? Why?
- (15) Do you give trade discounts to big clients?
- (16) In the past few years, what is the selling price trend (fluctuation) of an identical product?
Why? (e.g. due to technological advancement, unreasonably high profit at the very beginning)
- (17) What is the price range of your products?
(Highest selling price & that product's features)
(Lowest selling price & that product's features)

Product

- (18) What products do you produce and sell? How far are they different from each other?

- (19) How do you set the design of your products?
(e.g. self-design, design according to specific orders from customers)

Distribution Channel

- (20) How do you know your customer at the very beginning? And, how do you contact them?
- (21) Do you set up your own overseas sales office?
- (22) (If yes) (i) What are these countries?
(ii) How good are your sales office doing? (in terms of increase in sales volume and profit in previous years)?
- (23) (If no) Are you planning to do so and how?
- (24) Have you made any use of government services, such as those from the Trade Development Council and the like? How do you feel about these services?

Promotion

- (25) How do you promote your product?
(e.g. (i) advertisement on newspaper, magazine, T.V.,,
(ii) exhibitions,
(iii) emphasis on after-sales service,
(iv) depends on few long-term and big clients,
(v) word-of-mouth,
(vi) trade missions to overseas countries,

(vii) other means (such as personal selling, setting up more sales and services branches).

(26) Have you done any marketing research?

(27) Do you believe that promotion is important for export marketing and why?

Sales Force

(28) As a means of incentive, do you pay your overseas sales representatives high, or on a motivated commission basis, or both?

(29) What are the background (academic qualification, working experience, etc.) of your sales representatives?

(30) Are you satisfied with their performance?

(31) Before appointing these sales representative to work on their own, has your company provided them with training programs?

(32) Are these sales representatives sent from Hong Kong? Or, do you use foreign nationals? Are they working on a full-time or part-time basis?

Competition

(33) How many local manufacturers are competing with you?

(34) What are their sizes?

(35) What are they competing on - price, services offered, or others?

- (36) How serious are the competition from Asian countries, such as, Taiwan, Korea, Singapore, ... etc. Please name all these countries. What are the sizes of the manufacturers in these countries? What are they competing with Hong Kong manufacturers - price, services offered, or others?
- (37) Could you suggest some opinions as to how to meet the competition specified above?

Financial Aspects

- (38) What are your sources of finance? Please name them, such as, capitals from yourself, your relatives, your partners and friends, or borrowings from banks and other financial institutions. Also, please express the funds from various sources in relative percentages.
- (39) What are the terms of payment?
- (40) What are your terms of collecting accounts from your customers?
- (41) What percentages are the followings to total product cost?
- (i) rent
 - (ii) labor
 - (iii) material
 - (iv) other overheads (e.g. indirect labor, indirect material, selling and administrative expenses.)

(42) What is your gross profit margin? In 1979?

In 1980?

(43) Any other comments, please.

Name of The Firm: _____

Location of The Firm/Address: _____

Name of Person Being Interviewed: _____

Rank/Position in The Firm: _____

- Thank you for your cooperation -

APPENDIX II

QUESTIONNAIRE

SET 1 (FOR ELECTRONIC WATCH BUYERS, SHORT INTERVIEW)

- (1) Are you buying Hong Kong electronics watches?

(Go to Question 2 if 'YES')

(Go to Question A in Set 2 if 'NO')

- (2) Have you bought before?

(Go to Question 3 regardless of 'YES' OR 'NO'.)

- (3) Why do you prefer Hong Kong electronic watches?

(Give guidelines if the interviewee hesitates to answer, such as:

Cheaper price;

Accurate delivery;

Do exactly what you have ordered;

Friendly attitude;

Others.

- (4) Before you place an order, do you know the manufacturer well?

- (5) Do you insist on visiting that manufacturer's factory before an order is placed?

- (6) What are the most important things that you must be satisfied during a visit to that factory?

(Guidelines: Size of factory;

Environment of factory;

location of factory;
quality of labor & staff in the factory;
equipments installed;
others.

QUESTIONNAIRE

SET 2 (FOR ELECTRONIC BUYERS AND NON-BUYERS,
SHORT INTERVIEW)

- (A) What electronic products are you going to buy in
Hong Kong?

(Stop if 'NOTHING', otherwise proceed)

- (B) Do you consider to buy electronic watches as well?

(Go to Questions (3) to (6) of Set 1 if 'YES')

(Go to Question C if 'NO')

- (C) Have you bought Hong Kong electronic products
before?

- (D) Why do you prefer Hong Kong electronic products?

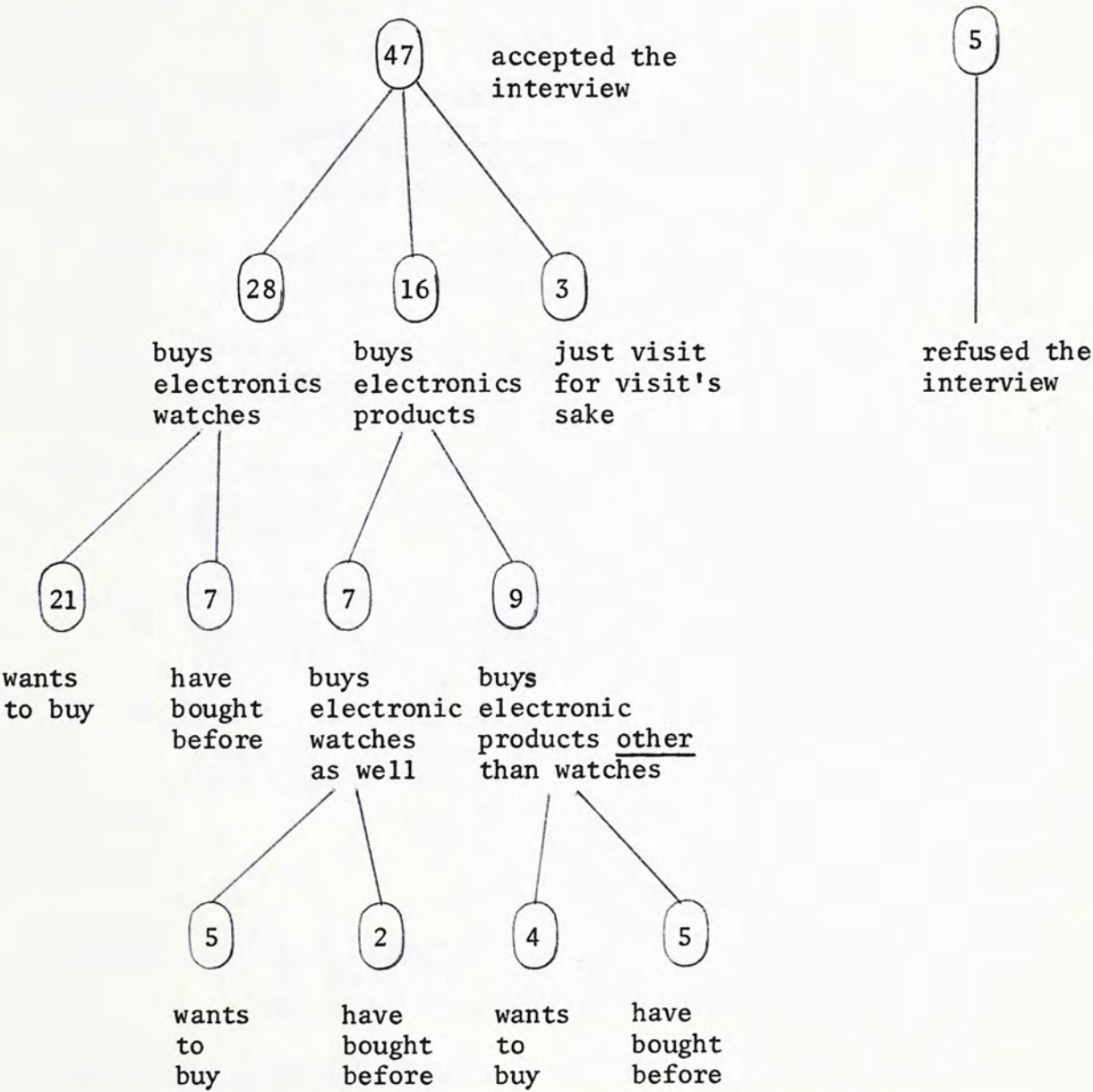
(Guidelines same as in Set 1)

QUESTIONNAIRE

SET 3 (FOR WATCHES BUYERS, DETAILED INTERVIEW)

- (7) Why do you choose this particular moment to come to this exhibition?
- (8) Where do you come from, sir?
- (9) Through what channel do you know a particular Hong Kong electronic watch manufacturer?
- (10) Will you tend to buy from a Hong Kong sales office set up in your country instead of coming to Hong Kong for placing the order?
- (11) Need the product be of new design?
- (12) Could you give us some advices and comments to the Hong Kong electronics LCD watch industry?

CHART: NUMBER AND NATURE OF OVERSEAS BUYERS INTERVIEWED (in the two exhibitions)



Footnote:

Interviewing Pattern

Interviewees answering	
Questionnaire Set 1	----- 31
Interviewees answering	
Questionnaire Set 2	----- 12
Interviewees answering	
Questionnaire Set 3	----- 4

BIBLIOGRAPHY

Books

- Amrine, Harold T.; Ritchey, John A., and Hulley, Oliver S. Manufacturing Organization and Management. Third Edition. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1975.
- Dominguez, George S. Product Management. American Management Association, 1971.
- Kotler, Philip. Marketing Management: Analysis, Planning and Control. Fourth Edition. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1980.
- McCarthy, Jerome E. Basic Marketing - A Managerial Approach. Sixth Edition. Homewood, Illinois: Richard D. Irwin, Inc., 1978.
- Myers, James H. and Reynolds, William H. Consumer Behaviour and Marketing Management, Boston: Houghton Mifflin Company, 1967.
- Nehrt, Lee C.; Evans, Gano S., and Li, Lamp. Managerial Policy, Strategy and Planning for Southeast Asia. The Chinese University of Hong Kong, 1974.

Periodicals

- Hewlett-Packard Personal Calculation Digest, Volume Six. The HP Magazine and Product Catalog, Palo Alto, California: The Hewlett-Packard Ltd., 1980.
- Hong Kong Economic Journal (信報), January 2, 1981.
- Hong Kong's Industries 1980. The Trade Industry and Customs Department, Hong Kong Government Press, February 1981.
- Hong Kong Trade Statistics; Export and Re-exports, 1970-1979. The Census and Statistics Department, Hong Kong Government Press, February 1971-1980.
- Hong Kong Trade Statistics; Export and Re-exports, January, 1980 - February 1981. The Census and Statistics Department, Hong Kong Government Press, March - April 1981.

Ming Po Man Po (明報晚報), September 22, 1980.

South China Morning Post (南華早報), February 14, 1980.

Wah Kiu Man Po (華僑晚報), December 18, 1980.

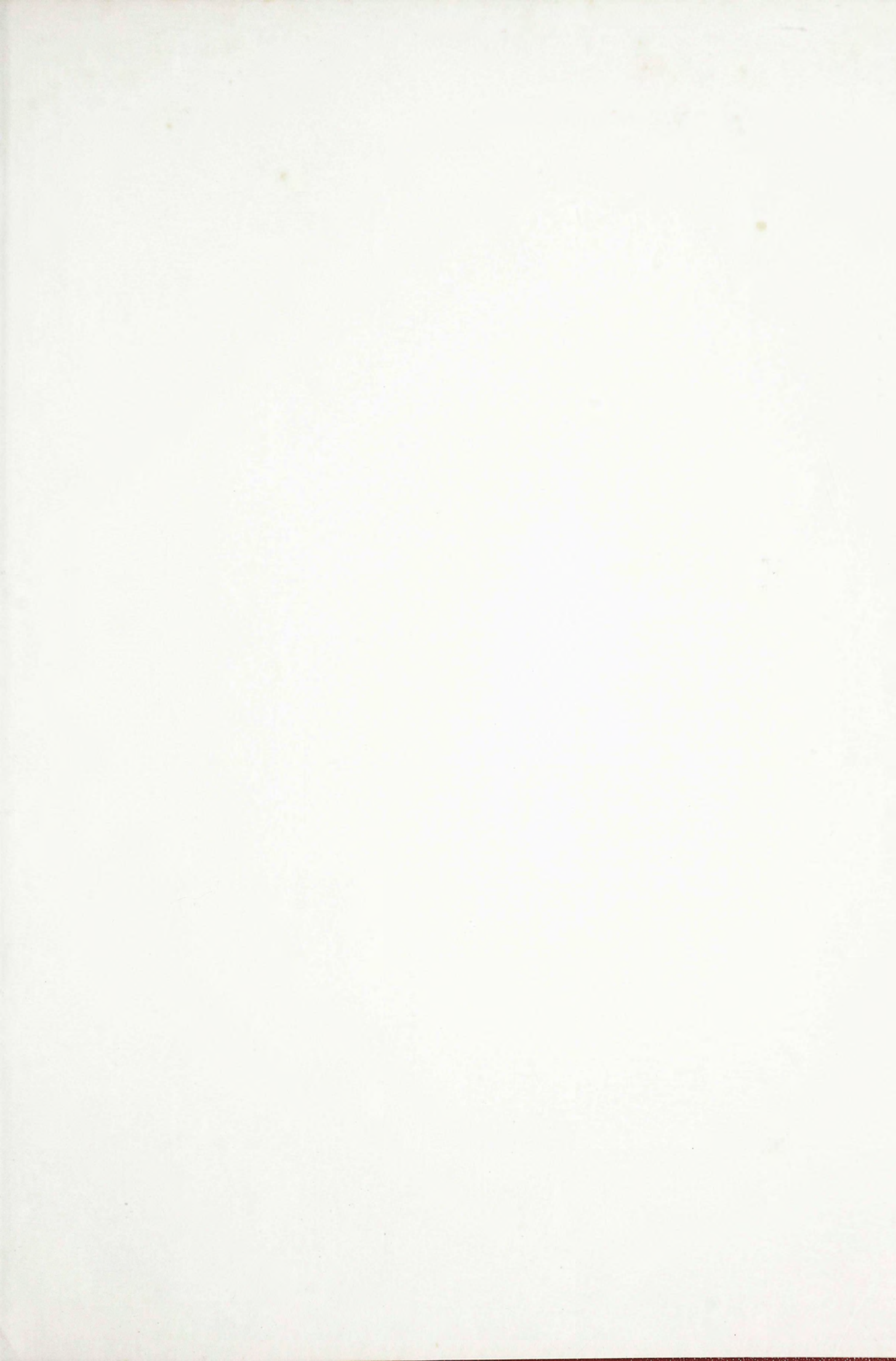
香港電子錶行業崛起於一九七二年，其後發展迅速，由最初之三間工廠擴展至六百五十七間。隨着電子科技之演進，電子錶行業亦由利用發光二極管（L E D），進而應用液晶體（L C D）。近年來後者日趨普遍，以致前者已成為絕無僅有。本文討論範圍，只限於液晶體電子錶行業。

香港電子錶在世界市場佔有十分重要之地位。據聯合國調查所得，在一九七九年度內，本港鐘錶出口僅次於瑞士及日本，名列世界第三位。這一發展蓬勃的新興工業，實值得加以觀察及研究。

作者曾按照工廠規模劃分研究對象，進行深入訪問，並分析電子錶行業的困難及前景。

此行業規模可分兩大類：大型及中型工廠。作者認為大型工廠之主要挑戰在於市場及工程生產設計，因而作者提議設立有效之市場推廣及研究計劃、加強推銷人員質素、及新產品設計，以應付此項挑戰。中型工廠之主要難題，來自欠缺週詳之計劃及財政來源。建議之解決方法，為設立有效之規劃方案及商洽大型工廠判給部份訂單。

作者之建議屬於一般性質，其具體實施方案則有待各別廠家根據本身之長處及弱點，作出相應之調整，然後始能產生實效。





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